Det. Bel Isle & Windsor Ferry Co's 68

DEVOTED TO NAVIGATION, COMMERCE, ENGINEERING AND SCIENCE.

VOL. X NO. 22. CLEVELAND. O.. MAY 31. 1888. $2.00 PER ANNUM. SINGLE COPIES 5 CENTS.

AROUND THE LAKES.

CLEVELAND.

The work on the second Hill boat is nearly completed; she is now receiving her machinery and will be ready to launch in a couple of weeks.

The Cleveland Shipbuilding company has completed the placing of the new boilers in the steamer Egyptian. The boilers were built by the Sterns manufacturing company, of Erie, Pa.

Chicago papers give very flattering notices of the steamer E. P. Wilbur, built by the Globe Iron works company for the Lehigh line.

Last sign of C. Blanchard until yesterday, when he was heard of through an old friend named Jackson, said he was in Marquette. He is now inspector of hulls at that port, and Chas. M. Gooding inspector of boilers.

No. 2 of the Lackawanna line is fast approaching completion, she is plated throughout and work on her decks well along. It is expected she will be ready to launch in about a month or six weeks.

Mr. C. D. Chase, has gone to Bay City, to fit out the new steamer Soo City, with one of his fog whistle machines and will stop on his way down and put one on the new steamer E. M. Peck, at Detroit.

Captain S. B. Grummond's tug W. A. Moore brought in the largest tow of the season, consisting of the schooner Montcalm, S. L. Watson, R. Hallaran and Chas. Foster. The Moore is commanded by Captain W. C. Brown, J. Bailey, engineer and B. Bethune Elsey mate.

At the Cleveland drydock they had the tug Dragon, in dock for calking and some minor repairs; the schooner C. H. Johnson, badly damaged and in a sinking condition, was put in Tuesday for considerable work. She had a large hole stove in her port bow, which necessitated the removal of some twenty strakes of planking and she will receive two, three or four new frames.

Buffalo papers say many nice things about the steamer Alfred P. Wright, built by Thomas Quayle's Sons for Captain Frank Perew. Captain Frank Perew, her owner; T. E., W. H., and G. L. Quayle, her builders; H. G. Trout, the builder of her engines; Thomas and J. C. Fitzpatrick, of Cleveland; C. H. Woodworth, of Buffalo, and J. H. Van Buren, of Dunkirk, insurance agents, went along on her maiden trip.

The tug John F. Whitelaw got into bad shape on Sunday night. Her owners, Messrs. E. R. Edson & Co., whose place of business is near the Center street bridge, had made her fast on Saturday night just underneath that structure. During the storm on Sunday night a large stream of water from Detroit street hill came down upon her, and filling her entirely with water she sunk to the bottom of the river. Efforts which were begun to raise her will probably be successful.

Captain Kelly, of the steambarge Shepherd, says the circumstances under which he was fined $40, which he is paying under protest were peculiar. He arrived here at 4 30 Saturday afternoon, the 12th, and the custom house closing at four o'clock, he could not report before Monday morning. He departed at twelve o'clock that night, and left his clearance papers with a coal agent, thinking that, rather than delay his boat thirty-three hours, he could report by proxy as well as in person. The fine will probably be remitted.

The new transfer steamer building by the Cleveland Shipbuilding Company, for the Michigan Central railway company is to be 279 feet over all, 260 feet keel, 45 feet 6 inches beam and 75 feet from outside to outside of her guardes. She will have six engines, 2 double horizontal engines for her paddles, 28 inch cylinder and 48 inch stroke one single horizontal engine for her propeller 28 by 36. She will also have a seperate engine for her air pump and condenser size not yet determined. She will have three tracks and carry 21 loaded cars. This boat is well under way; her keel is laid and work on her will be rapidly pushed. Her machinery is being built, several of the heavy castings being already finished.

A serious collision occurred between two boats while being towed in the river Tuesday. The barge Brooklyn, with a cargo of coal for Sarnia, was being towed down and out on her voyage by the river tug Mystic. The latter, it is said by some who were near by at the time, had whistled for the starboard draw of the Columbus street bridge. But the tug J. D Dudley, with the schooner C. H. Johnson in tow, either did not hear the whistle and did not see the boat, as she was in a sharp bend of the river at the time, or for some other cause kept to the starboard side of the channel. The result was that both boats met in the draw of the bridge, and struck each other nearly head on. The Brooklyn was so badly damaged that just sufficient time was left to tow her out of the swing of the bridge before she settled to the bottom of the river. The Johnson was sufficiently injured to compel her to abandon loading and to tow again down the river and into drydock for repairs. The Johnson is believed to be insured but there is said to be no insurance on the Brooklyn. The Johnson was to have loaded coal for Escanaba.

The tonnage of the following lake vessels steam and sail according to the report from the bureau of navigation is schooner Dawn, Milwaukee, 26.17 gross, 24.87 net; schooner Julia, Milwaukee 47.11 gross, 44.76 net; steamer Arcadia, Grand Haven, 230.29 gross, 146.52 net; steamer Albert F. Gowen, 213.92 gross, 180.17 net; steamer Derrick, Port Huron, 70.95 gross 35.48 net; steamer Ellen M., St. Paul, 19.43 gross, 16.00 net; H. C. French, 142.41 gross, 111.82 net; steamer John R. Cooney, Erie Pa. 13,40 gross, 6.70 net; Jessie Wilson 120.30 gross, 71.70 net; steamer John Craig, Detroit, 2044.08 gross, 1596.27 net; steamer Jennie R., Port Huron 15.69 gross 7.85 net; steamer J. Emery Owen, Detroit, 1739.53 gross 1292.47 net; steamer Lulu M. Ray, Grand Haven, 20.45 gross, 10.33 net; steamer Mark B. Correll 261.08 gross, 192.38 net; steamer Pilgrim, Grand Haven, 226.19 gross, 186.47 net; steamer Roberta, Detroit, 31.31 gross, 21.50 net; steamer Robt. Mills 1790.50 gross, 1522.17 net; steamer Soo City, Port Huron, 670.79 gross, 438.56 net; steamer Transfer, Port Huron, 177.69 gross, 165.52 net and steamer Wau Bun, Chicago, 63.63 gross, and 31.82 net.

The Wilbur is giving the best of satisfaction. The following is a letter received by the president of the Globe Iron works company from the engineer of this splendid boat, which is evidence that the Wilbur has no equal for beauty or speed:

CHICAGO, May 28.

J. F. Pankhurst, Esq., Globe Iron Works, Cleveland, Ohio.

Dear Sir:—The E. P. Wilbur worked O K coming up, nothing having a tendency to heat. Our average time on Lake Erie was 12½ miles, on Lake Huron 13½ miles and coming up Lake Michigan 14½ miles and a little better, turning 78 and 79 revolutions, working in the second notch from the top with full throttle. We were delayed considerably with foggy weather on Lake Michigan and Lake Erie. After passing Dummy light checked down to half speed, and after passing Colchester light stopped until daylight, about four hours. All joints in good shape and tight. Will let her go back the same gait as we did coming up this lake and see what she will do going down. The coal is not the best, somewhat fine for fast running. Yours respectfully

GEORGE WATERBURY,
Engineer steamer E. P. Wilbur.

The new steel steamship, Lackawana, built by the Cleveland Shipbuilding company for the Lackawanna Transportation company left this port at 6:00 Tuesday evening for Buffalo. She presented a very fine appearance as she proudly steamed out into the lake and was the object of the gaze of many admirers of the large trim built craft. Among those who took passage on her to see how fully she will equal expectations of those interested were Mr. H. D. Coffinberry, president of the Cleveland Shipbuilding company; Mr. O. N. Steele, assistant superintendent; Mr. J. C. Wallace, draughtsman; T. W. Bristow, superintent of shipyard; Captain M. M. Drake and A. A. Pomeroy of the RECORD. That she is a fine ship no one can deny, and she is fitted up with the most improved machinery for handling her, taking on and off cargo, and is as well fitted out in that respect of any boat built at this port.

MILWAUKEE.

Special to the Marine Record.

This has been a fairly active week in marine circles, but news is very scarce and uninteresting. The M. S. Y. Co. have the Omaha number 2 all in frame and will start the planking sometime next week. Their stationary dock is causing the contractors considerable trouble from leakage. Being, as it is, built on made ground there is no foundation to work on, and the contractors will drive sheet piling all around it in the hopes of giving it strength.

Marine men are awaiting the arrival of some of the new racers, as the Owego is the only one we have seen here as yet.

The new barge T. Adams left Friday after discharging her coal cargo.

The wreckers on the schooner Monguagon found that one pump was insufficient to clear the water and have put on a second one. It is hoped to have her in the dock by the 1st of June.

The steambarge Burnham is in dock at Wolf's receiving a new Sheriff's wheel and making slight repairs to stern bearing.

The steambarge White and Friant was also in the dock for slight repairs.

The "Soo Road" seems to have diverted a good deal of the flour that used to come here and consequently the railroad liners do not take out so much as formerly.

The light house supply steamer Dahlia was in last week.

The revenue boat Johnson is not fitted out on account of a lack of funds (supposedly.)

The steambarge Davidson, loaded, 1,985 tons of ore on 14 feet 6 inches forward and 15 feet 3 inches aft. It is expected she will bring 2,300 tons of coal up.

The ordinance, granting the C. & N. W. road the right to build a stone sea wall north from the straight cut to a point 200 feet east from Wisconsin street, has been dropped, as the city fathers have found out that they have no jurisdiction in the matter. They might have known it before if they had consulted a lawyer.

I notice that the city of Chicago has placed additional hindrances in the way of navigation on the river. They seem to forget what makes Chicago such a commercial point.

The Owego came in and finished out her cargo and left Friday night about 12 o'clock.

The order against racing by the Union Steamboat company is a good thing and will save considerable in fuel in a season.

J. A. S.

WEST BAY CITY.

Special to the Marine Record.

The propeller Robert L. Freyer was launched from F. W. Wheeler's shipyard last Saturday afternoon. She is owned by W. H. Gratwick and others of Buffalo, N. Y., and her dimensions are as follows: Length over all, 300 feet; beam, 41 feet; moulded depth, 23 feet. Her cost is $85,000, and she will be run in the iron ore and grain trade.

It is said that Mr. Frank Wheeler will get a plant for the construction of iron and steel ships. P.

SAULT STE. MARIE.

The propeller Niagara, from St. Joseph's Island, Ont., passed here May 18th for Duluth without reporting at the custom-house. On her way down Monday the steamer was seized by the custom-house officials here. She is laden with 25,000 bushels of wheat.

CHICAGO.

Special to the Marine Record.

The North Chicago Rolling Mill Co.'s, ore docks at South Chicago have long held the boom for the quick dispatch for given ore carriers. On Thursday May 24th they surpassed all previous records. Work was commenced on the steamer Merrimac, at 6 a. m. and finished at 11:30 a. m. 1492 gross tons; work was commenced on the steamer Massachusetts, at 1 p. m., and finished at 7 p. m., 1609 gross tons. Total 3101 gross tons taken out in eleven and a half hours by one set of men.

E. P. Wilbur arrived at noon. Thousands of people along the docks gave her a royal welcome. The trip was made in seventy-eight hours and thirty minutes. The captain says that for twelve hours in a fog he checked her to five miles an hour. He was also detained four hours at Bar Point. He says she acted splendidly, is very fast, and "will be able to show 'em all a clean pair of heels."

The magnificent new steel steamship Wilbur, Captain McFarlane, recently built a Cleveland by the Globe shipbuilding company, for the Lehigh Valley steamship company, arrived here Saturday morning on her maiden trip west with 2,400 tons of coal. She is one of the finest and most complete steamships that ever entered Chicago harbor, and as handsome as a good picture; everything about her is as substantial and good as the hand of man can make it, and she reflects very great credit upon her builders. She has been so completely described in other issues of the MARINE RECORD that it will be superfluous for me to mention more about her.

The splendid new steamship Wright, Captain John Perew, recently built at Cleveland by Thomas Quayle's Sons for Captain Frank Perew, arrived Monday morning on her first trip to this port with coal from Buffalo. She is a very fine steamship and is as strongly and well built as good timber and iron can possibly make her, combined with good workmanship, which Quayle's Sons are celebrated for, in addition to which she is of excellent model and a large carrier. She unfortunately found the bottom of the river just below Rush street bridge on her arrival, and when she was pulled off by the tug towing her she swung around and her stern collided with the L. M. and L. S. Transportation company's steamer Peerless, laying at the dock of Kirk's soap manufactory, and carried away thirteen stanchions on the upper deck and about forty five feet of the upper rail.

The steamer Peerless going down the river collided with the schooner Day Spring, of Sheboygan, laying at the lumber market in the rear of Finney & Channon's ship chandlery, and carried away several feet of her fender strake and crushed in some plank and frames on the starboard side, just abaft the forerigging, causing her to leak some, but not very badly.

The new steambarge Pilgrim, recently built at Saugatuck by Captain Rogers for himself and C. E. Bird, his partner, arrived from Muskegon Tuesday morning with lumber, on her first trip. She is of excellent model and a very substantial, well built boat. She is 130 feet over all, 23 feet beam, 9 feet hold; has a high pressure engine 18 by 20 and boiler 6½ by 12, both built by the Montague Iron works, Montague, Mich. She will carry lumber until the fruit season when she will be engaged in bringing over fruit and also carrying some passengers, she being provided with ten staterooms in addition to the captain's and officers' rooms. Captain John Cambpell is commanding her and Ferman Redner and Byron Hopkins are engineers.

The steambarge Edwin P. Gill indulged in a lively spree at the head of the market today. Somebody cast her adrift and having no steam the current spun her around like a big top. Before a tug reached her she knocked out the jibboom of a "hooker" that got in her way.

Dunham's wrecking outfit goes to Point Au Pelee to raise the White Star, foundered there last fall.

The very handsome new passenger and freight steamer H. W. Williams, recently built at South Haven, by Captain John Martel, shipbuilder of Saugatuck, for H. W. Williams, her owner, after whom she receives her name, arrived here on her maiden trip from South Haven, Tuesday morning. She is 164 feet over all, 28 feet beam, 11 feet depth of hold; her high pressure engine 24 by 28 was built by Henry Bloecker & Co., Grand Haven, and boiler 8½ by 15 by Johnson Brothers, Ferrysburg, and the King Iron works, Buffalo, supplied her with an 8½ feet diameter Trout wheel; she has accomodation for 100 passengers and her staterooms, cabins, and other departments are fitted out with a view to give those traveling on her all the comfort and enjoyment they require. South Haven people should feel especially proud of her and of her owner for supplying them with such excellent, safe, and comfortable means of transit to this city. She is commanded by Captain David Morris; Wm. Elton, son of Captain Alexander Elton, who formerly commanded the steamers Lora and Saint Joseph, and who would have commanded the H. W. Williams had he not been recently called away on a voyage from which no mariner returns, and whose death is very deeply regretted by his friends, of whom he had many, is first mate; Charles Smith is first engineer and C. W. Williams, son of the owner, is clerk.

Beckwith & Fleming, agents of Lehigh Valley company, entertained about three hundred ladies and gentlemen on board the Wilbur Wednesday afternoon. An elegant lunch, including the finest of wines, was served. The ladies climbed the stairways, decended into the engine and boiler rooms to the peril of their spring suits and gloves, peeped into every locker, tried to make the compass needle point south, and finally over their lunch talked learnedly over "triple expansion engines," "steam hoisting apparatus," and marine matters generally. The gentlemen were loud in their praises of the vessel and pronounce her the peer of any ship afloat.

The steamer Duval picked up two yawlboats, lashed together, ten miles south of Frankfort Tuesday.

Captain James Wagely, an old resident of Cross Village, died Tuesday. He was well known among sailors.

Dunham has dispatched a wrecking expedition to Point au Pelee to raise the sunken White Star. She is loaded with coal and rests easy on a bed of sand.

The steambarge Thomas H Smith arrived for the first time this season from Sturgeon Bay, Friday night, in command of Captain John Walker, and engineered by William Delamore; she has received considerable improvements, and alterations have been made in her cabins which will increase her carrying capacity 100,000 feet more lumber. She has two consorts, the Emerald and Mayflower.

The schooner Olga going down the river, light, in tow of a tug Friday afternoon, took the jibboom out of the schooner Willie Loutit at the lumber market.

WILLIAMS.

ERIE.

A day or two ago the tug H. G. Root, owned by Captain F. Dunbar, of Buffalo, came to Erie with two barges for coal for the contract work at the limekilns, where Mr. Dunbar is doing dredging. The tug and barges were loaded and all started out in a stiff breeze. The breeze increased to a gale, and in mid lake both barges went down, and but for the fact that the lines were chopped would have taken down the tug. No lives were lost but the tug had a hard and perilous voyage. The barges and cargo were worth upwards of $5,000.

MARQUETTE.

The ore docks at Escanaba were the scene of a riot Tuesday night. The ore trimmers demanded higher wages and struck. New men were put on, but when they appeared for work the strikers assaulted them savagely with picks, shovels, stones and clubs, seriously injuring several. The riot was finally quelled and ten of the leaders are in jail.

[*Continued on 5th Page*]

EVERYTHING COMPARATIVE.

O & C ST. MARY'S FALLS CANAL.
UNITED STATES ENGINEER OFFICE,
34 WEST CONGRESS STREET,
DETROIT, MICH., MAY 11TH, 1888.

To the Chief of Engineers, U. S. Army, Washington D. C.

SIR: At the close of the season of 1887, Assistant Engineer E. S. Wheeler, in local charge of the works of river improvement at Sault Ste. Marie, and general superintendent of St. Mary's Falls canal suggested that the otherwise idle time of the permanent employes at the canal be utilized, during the interruption of navigation, in an examination of the records of the canal office, with a view to ascertaining from them such information as would, when supplemented by data obtained from those engaged in commerce, show the average length of voyage of the vessels using the canal, and the actual freight charges per ton per mile for the cargoes transported.

The suggestion received my approval, and the work has been assiduously carried on. It involved a great deal of labor, but no expenditure, of moment. Yet the results obtained are so interesting, important and satisfactory, that a considerable expenditure on this account would be justifiable.

I transmit herewith a copy of Mr. Wheeler's report, omitting, however, the correspondence had with shippers and carriers, but including the data obtained and condensed from the many letters received.

The gist of the report i contained in the following figures, the ton of 2,000 pounds being used in all cases.

Down freight	3,749,436 tons
Up freight	1,745,213 tons
Total freight	5,494,649 tons
Total mile tons	4,458,544,804
Average distance each ton was carried by water	811 4-10 miles
Total freight charges, including terminal charges	$10'075,153 13
Average freight charges per ton per mile	23-100 of a cent
Average freight charges per ton for 811 4-10 miles	$1 83

The average charges during the year 1887, upon each of the following items carried through St. Mary's Falls canal were as follows:

On coal	$0 90 per ton
On flour	0 29 per barrel
On Grain	0 07 per bushel
On manufacture iron	2 35 per ton
On Salt	0 18 per barrel
On copper	2 60 per ton
On iron ore	1 75 per ton
On lumber	4 00 per M ft. B. M.
On silver ore	3 00 per ton
On Stone	1 15 per ton
On unclassified freight	4 00 per ton

The bureau of statistics gives the average freight charges per ton per mile on the trunk railroads of the United States for the year 1886 999 1000 of a cent, or in round number, one cent.

Thus the average freight charges by rail compared with those by water, appear to be as 811 to 183. That is to say, sail transportation for freight costs 4 43-100 times as much as by this water route.

Upon this basis, the $10,075,153 representing the cost of freight transportation by this water route during the season of 1887, would have been, if the freight had been carried by rail $44,632,293, and the saving, because of the availability of the water route, amounts to no less a sum than $34,557,140, for the single season.

But, it is well known that the freight rates by such railroads as compete with water routes are always reduced during the season of navigation. If the water route were not available, it is to be presumed that the rates would be maintained at a considerable higher average for the year, than that mentioned above, and the sum actually saved in transportation, due to the existence of the water route under consideration, ought therefore to be correspondingly increased.

It is not at all improbable that but for the water route open about seven months in 1887, the charges levied upon the freight carried would have amounted to fifty million dollars. If this estimate is not exaggerated, and I think it is not, then the actual benefit to producer and consumer was fully forty millions in that single year, divided between them in unknown proportions.

To realize what this benefit means, it is only necessary to state that it represents more than ten times the cost of improving the canal and St Mary's river to the present time, or about six times the estimated cost of the proposed further improvement, or about four times the cost of all the improvements already made and those yet to be made between Lake Superior and Lake Huron.

Moreover, it is fully seven times the amount expended upon improvements between Lake Superior and Lake Erie.

Very respectfully, your obedient servant,
O. M. POE,
Lieut. Col. of Engineers, Bvt. Brig. Gen. U. S. A.

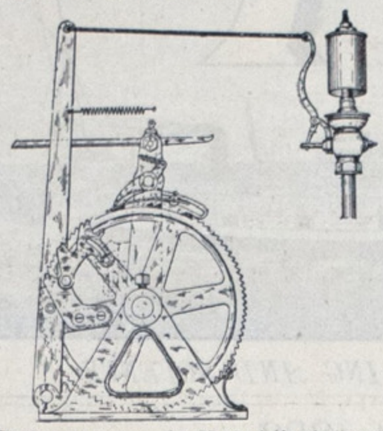
THE Chicago Inter-Ocean figures that the Tioga will earn as much money for the Union Steamboat Co. as both the Owego and and Chemung, and speaks rather lightly of the "salt water men" who "gauge all marine matters" for that company.

IF the above is a true version of the statement of the Inter-Ocean we cannot say much for the wisdom of the editor men.

THE CHASE FOG WHISTLE MACHINE.

The dangers attending fogs on the lakes are well known to all our sailor men, and all know that the regulations require that, during fogs, a signal shall be sounded at regular intervals. Under the old system of fog signals, the service and close attention of a man was required at all times while navigating in a fog, and this service became so monotonous that Mr. Chase, engineer of the steamer Ohio, devised and patented a machine which, when attached to the engine, would sound the fog whistle automatically.

The cut shows the position of the machine, and its action on the whistle.



During the season of 1887, the following named steamships, thirty in number, were supplied and equipped with our machines. The same having given entire satisfaction in each and every case, we refer with pleasure, all those interested, to the owners and masters of said steamers:

Wilson Transit Line, Cleveland, O.—Steamers Spokane, Wallula, Kasota, Tower, Yakima, Missoula, Sitka.

Northwestern Transportation Co., Detroit, Mich.—Steamers Fayette Brown, R. J. Hackett Forest City.

Cleveland Transportation Co., Cleveland O.—Steamers Sparta, Havana, Vienna, Townsend.

Bradley Transportation Co., Cleveland, O.—Steamers City of Cleveland, Henry Ghisholm, Superior, E. B. Hale, M. B. Grover, J. S. Fay, R. P. Rauney.

H. H. Brown, Cleveland, O.—Steamers Smith Moore, Chas. J. Sheffield.

Owen Line, Chicago, Ill.—Steamer Ira H. Owen.

Cambria, Outhwaite, Samuel Mather, R. R. Rhodes, Columbia, Aurora.

The machine is at all times under the control of the captain; that is, if it is necessary that a signal shall be given to a passing steamer, or for any other purpose, the moment the captain pulls his wire, the fog whistle machine is thrown out of gear and will not resume its sounding until it is permitted to do so by the master.

Following is the report presented by the committee:

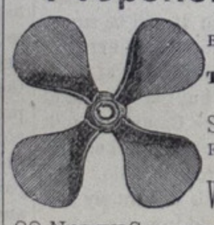
To the President and Board of Supervising Inspectors of Steam Vessels:

Your committee to which was referred the 'Ghase Fog Whistle Machine" beg leave to report: "That we have carefully examined the same and find that it blows at regular intervals, being worked by the engine, thereby insuring regular and continuous blasts for any length of time that may be required and would recommend it or similar device to owners of steam vessels as an additional safeguard to navigation.

H. S. LUBBOCK,
GEO. H. STARBUCK, } Committee.
W. D. ROBINSON,

The manufacturers are the Chase Fog Whistle Machine Co., corner of Elm and Spruce streets, Cleveland, O.

Propeller Wheels.



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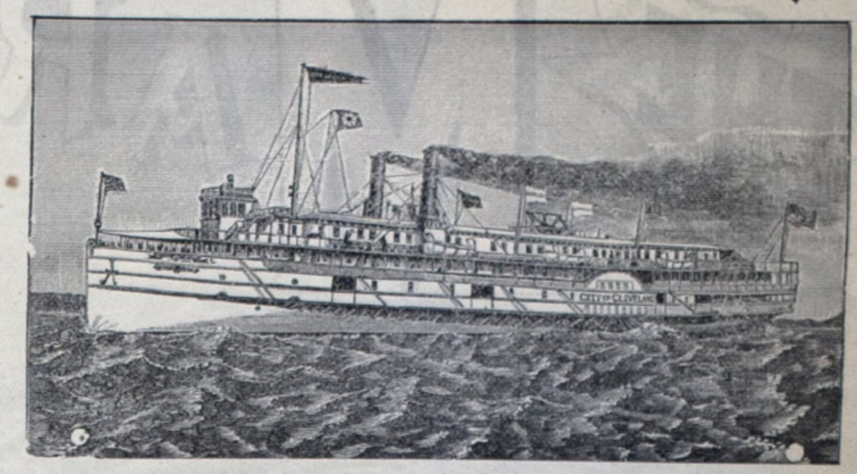
MANUFACTURERS OF
Iron Tackle Blocks
TAKING THE PLACE OF WOODEN BLOCKS FOR ALL PURPOSES.
159 River St., CLEVELAND, O.

DETROIT DRY DOCK CO.,



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OWNER OF TUGS 'Winslow,' 'Leviathan,' 'M. Swain,' 'Champion,' 'Wm. A. Moore,' and 'Usw go' } Detroit, Mich.
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LEVIATHAN, CAPT. M. SWAIN, STATIONED AT CHEBOYGAN
With plenty of Wrecking Material on board and in Warehouse.

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Which Man is the Tallest?
If you measure carefully the figures in this cut you will find that the man who appears the shortest is in reality the tallest. If you will coal your boats at my dock, adjoining S. F. Hodge Iron Works, you will get better dispatch and better COAL than at any other place in the city.
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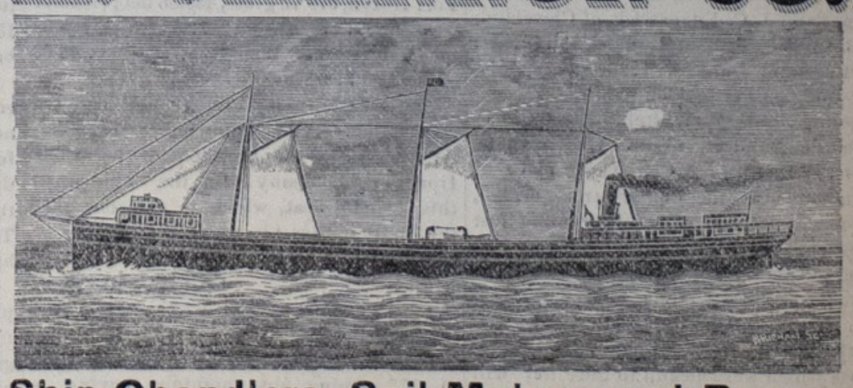

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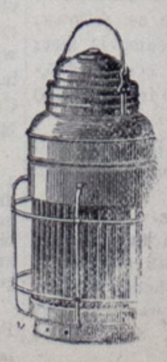

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WE ALSO MANUFACTURE THE CELEBRATED
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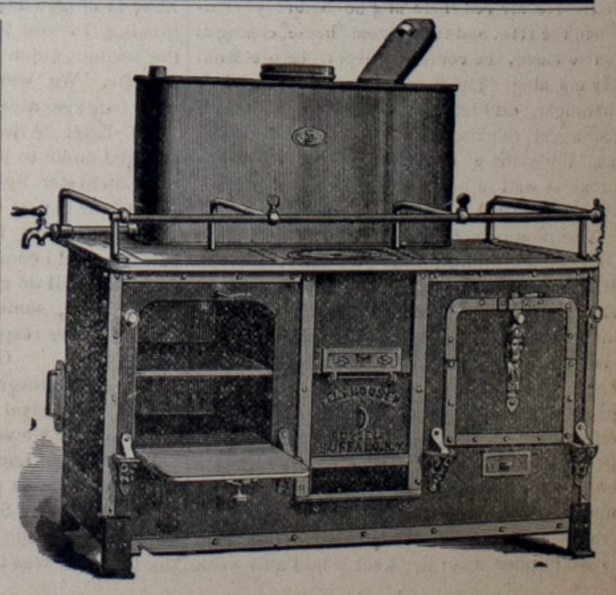

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VESSEL AGENT AND BROKER,
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Owners and masters of vessels wishing to get cargoes of grain from this port will do well to confer with me. Will be glad to furnish information in regard to cargoes, also in relation to docks, depth of water, etc., at Duluth, Agate Bay (new iron ore port), Port Arthur, Washburn, Ashland, and all points near the west end of Lake Superior. Good gangs of men furnished on short notice for trimming cargoes of grain, loading and unloading all kinds of freight.

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I have an excellent gang of Trimmers this season, Captain Miller's old Crew.
Special Attention Paid to Chartering Vessels, and seeing that they get dispatch in Port.
CORRESPONDENCE SOLICITED.

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General Stevedoring. Discharging Loading and Ore Trimming Promptly Attended to. A Large Force of Men always on Hand. Information in regard to
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gladly furnished. Quick dispatch guaranteed. Patronage Solicited.
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Celebrated Lubricants. Also, Cylender and Machine Oils.
Sole Agents for the Dunnigan Automatic Compression Oil and Grease Cups.
B & W LUBRICANTS are the only strictly pure mineral oil, solidified without the use of alkalies, rosins, acids, or any deleterious material whatever. Acknowledged by the best grease judges of America to be the best grease yet made. Especially recommended for use on steamboats, on account of its low cold test and high melting point. Samples free. Send for circulars of both grease and greave cups.
Britton & West,
54 Grand Arcade, Cleveland, O.

WANTED.
A SMALL STEAM LAUNCH. ADDRESS, GIVing size, speed, age, etc., and bottom price, H. A. MURPHY, Bayfield, Wis.

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IRON SHIPS,

Marine and Stationary ENGINES AND BOILERS,

Blowing Engines and Steam Hammers, AND MILL GEARING AND CASTINGS.

Repairing and Jobbing Solicited. Office on Viaduct.

We take pleasure in announcing that we have purchased the property, business and good-will of the Cuyahoga Steam Furnace Company, and will add to these works, so long and favorably known, a first-class Iron Ship-building Department, with sufficient room and all modern facilities for building two large vessels at the same time, and a Boiler Shop with most approved tools for large work, including Tweddell's Hydraulic Plant for flanging, riveting, etc.

We have associated with us Messrs. H. D. Coffinberry and Robert Wallace, late of the Globe Ship-building Co., and the Globe Iron Works, and Wm. M. Fitch, late of the Winslow Line of Steamers. We have made the following appointments: Mr. O. N. Steele, Assistant Superintendent; Mr. Thomas W. Bristow, late foreman of Wyandotte Ship Yard, Superintendent of Ship Yard; Mr. Quincy Miller, Superintendent of Boiler Shop; Mr. John Stoney, Superintendent of Foundry, and Mr. Jas. C. Wallace, Draughtsman.

We purpose building Iron and Steel Vessels of all descriptions, Marine and Stationary Engines and Boilers, Blowing Engines, Steam Helve Hammers and such other work as our large assortment of patterns eminently qualify us to build, at a minimum price.

Your patronage is solicited, and we trust that the excellence of our work, with fair dealing and strict attention to business, will secure its continuance.

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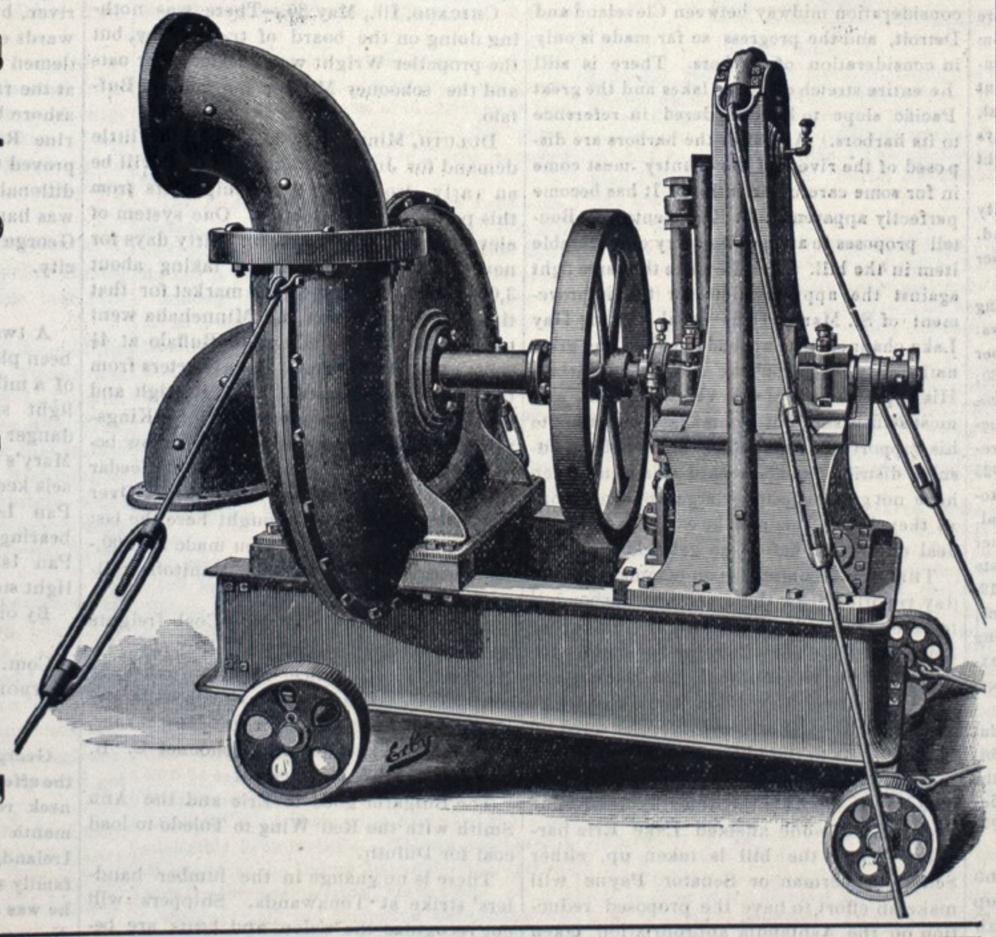

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Full Line Always on Hand.

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THE TUG MYRTLE, of Sandusky, Ohio, for sale cheap. Is in first-class condition. For particulars write to FRED GROCH, Sandusky, O.

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PROPELLER TOLEDO—About 700 tons capacity Apply to EBER WARD,
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THE TUG CAL DAVIS—Over all 65 feet, beam 14 feet, depth of hold 6½ feet, draws 7 feet of water. Has boiler allowed 90 pounds of steam, outboard shaft (no engine.) All in good condition. Price, $1,200. For further information address
HENRY LAY & CO., Sandusky, Ohio.

FOR SALE.
THE SCHOONER VENTURE—Length 50 feet, breadth 15 feet, depth of hold 4 feet, capacity 45 tons; built in 1882. Address WM. FARAGHER.
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A2 VESSELS WANTED.
IN EXCHANGE for improved Buffalo city property three fourths of a mile from City Hall, West Side. Fine dwelling houses that always rent.
Address, M. BROS., 22 Root St., Buffalo, N. Y.

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BARGE COL. BRACKET—She carries 260M feet of lumber, 420 tons of coal. Had $900 worth of repairs last season. Fit out good. Price $1,600. Mention this paper. ED J. KENDALL, Port Huron.

FOR SALE, the passenger steamer M. E MINTER, 13 tons net, 60 feet long over all, 18½ feet beam, 4 feet depth of hold. Engine 10x12, Scotch type boiler 4½x8. She is fully equipped for the passenger business. Terms, $2,000. Address,
CAPTAIN RICHARD CONNELL,
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FOR SALE.
SCHOONER VERNIE M. BLAKE—For sale cheap. Capacity 60 tons; dimensions, keel 55 feet, beam 19 feet 6 inches, depth of hold 5 feet 6 inches.
Address 22 Territt street, Cleveland, O.

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THE SCHOONER LEN HIGBY—For sale cheap. Capacity 55,000 feet of lumber. Sails and outfit in good condition. Repairs made in 1887. Address
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STEAMBOAT FOR SALE.
FIRST-CLASS in every respect. Nearly new. Capacity—400,000 feet lumber, 650 tons of ore, 700 tons of coal, 25,000 bushels of grain, and in addition the best tow boat on the lakes and the most economical of fuel. Present owners no further use for her.
Address LUMBER, care of Clowry,
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FOR SALE.
THE HANDSOME NEW FORE AND AFT SCHOONER W. C. Kimball, built at Manitowoc last winter, outfit all new and complete, 65 feet over all, 17 feet 4 inches beam, 4 feet 9 inches hold. Tonnage 31, 49
Apply to A. D. JOHNSTON, Manitow, Wis.

NOTICE TO MARINE MEN.
LATE official charts, showing the straight channel, now being dredged, and soundings in bay and river are for sale by
GEO. E. HARDY, Marine Collector,
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Price 50 cents by mail.

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Yawl Boats in stock 14, 16, 18, 20 and 22 feet long. Life Boats in stock 6, 18, 20 and 22 feet long.
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Shops ft. of ORLEANS ST., DETROIT, MICH.

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Parttcular attention paid to vessel work.
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THE boiler and machinery of the tug George Hand all in first class condition. Apply to
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Marine Record.

Published Every Thursday at 144 Superior Street, [Leader Building] Cleveland, O.

A. A. POMEROY, EDITOR AND PUBLISHER.

BRANCH OFFICE:
252 South Water Street, Chicago, Illinois.
THOMAS WILLIAMS, Associate Editor.

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DULUTH, MINN.—C. F. Johnson, 323 West Superior Street.

MARQUETTE, MICH.—J. A. Vannier.

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KINGSTON, ONT.—F. Nisbet, corner Brock and Wellington Streets.

Subscribers and others are respectfully invited to use the columns of the MARINE RECORD for the discussion of pertinent topics.

Entered at the Post Office at Cleveland as second-class mail matter.

CLEVELAND, O., THURSDAY, MAY 31.

CLEVELAND VESSEL OWNERS' ASSN'

ORGANIZED IN 1880.

[Membership, 1887]

Sixty-five steamers aggregating.....67,865 tons.
Ninety-five sail and consort, aggregating.60,089 ons.

Maintains shipping offices at Cleveland and Ashtabula Harbor. Regulates wages, protects crews, and takes cognizance of all matters in the interest of its members and of the Lake Commerce generally.

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MARINE RECORD—OFFICIAL PAPER.

COST OF FREIGHTING IRON ORE.

Is the Florence (Wis.) Mining News quite sure of its figures, in stating that the cost of hauling iron ore from Escanaba to Lake Erie ports last year amounted, on an average, to $1.42½ per ton? Let us do a little figuring; and, for making the comparison still greater, let us take the more distant port of Ashland: The distance from Ashland to Cleveland is 798 miles; actual steaming time 59 hours; loading, 12 hours; voyage out and back, 118 hours; discharging, 48 hours; total, 175 hours, or seven and ten-twenty-fourths days actual. Let us, however, estimate it at eight days.

Now let us take a vessel with a cargo capacity of 3,000 tons; engine, 2,000 h. p., compound. Supposing the vessel makes four voyages per month, it would carry 12,000 tons.

What are the expenses per month? Taking the highest costs, let us estimate them as follows: Sailing department, master and first mate, per month, each, $85; second mate, $65; steward, $60; mess boy, $20; four seamen, at $30 each, $120. Engineers' department, first engineer, $115; second engineer, $75; third engineer, $60; four firemen, at $40 each, $160; three coal passers, at $25 each, $75; two oilers, at $20 each, $40; grand total per month, $1,160. Now let us add coal, steaming twenty days per month, at 40 tons per day, 800 tons at $2.50 per ton, $1,600; oil waste and chandlery, per month, $50; unloading, 12,000 tons at 16 cents per ton, $1,920; provisions, 25 men at $10 each man per month, and adding 5 per cent. on $3,020, we have as the total expense of one month, $5,091, or forty-two and forty-two one-hundredths cents per ton.

By similar figuring, we arrive at the conclusion that the cost per ton from Escanaba to Chicago is thirty-seven and fourteen one-hundredths cents. Has our con-temporary any more definate fignres with which to offset these?—*Iron Trade Review.*

Let us figure some more: We have no masters of 3,000 ton steamboats who give up their navigation services for $85 per month but do average of $175 per month, counting, as our contemporary does, eight sailing months to the season; the pay of first mate usually is $80 per month; second mate $60; engineer $115 second engineer $75, cook $60, boy $20, four firemen $40 each, $160; six seamen $30 each, $180, two oilers $40; each, $80; two lookouts $40 each, $80; two wheelsmen $40 each $80 making $2.160 per month for salaries alone.

In computing the cost of transporting ore it is necessary to take into consideration the entire expense of the steamboat, such as harbor towing, which is $50 per trip; (and no $85 captain of a 3,000 ton steamboat is likely to run the risk of getting to dock in our narrow and shallow rivers without a tug), insurance $138 per trip, or close on to $500 per month; taxes $50, private light $75 per year; shore expenses, which are heavy and eat up much, such as telegrams, $400 per year; carpenter work $200 per season; outfit in the spring, $2,000; laying up, $350; handling ore, 22 cents per ton, for loading, 4 cents for trimming and 18 cents for unloading.

It appears that some one is misleading the editor of our contemporary in regard to the cost of transporting a ton of ore. While it surely does not cost $1.42½, it does cost more than 42½ cents per ton, as any one who will take the trouble to follow the expenses given above must surely acknowledge.

We are pleased to note the recent action of the Canadian government regarding wrecking courtesies. A bitter feeling has heretofore existed between the wreckers and authorities of the two countries interested, but the new order, when it goes into effect, will be conducive to good for all. Canadian vessels of all descriptions now render aid or assistance to Canadian vessels wrecked in Canadian waters or waters of the United States, and American vessels of all descriptions may go to the assistance of American or Canadian vessels wrecked or disabled in Dominion waters.

Mr. PENNINGTON, secretary of the Vessel Owners' Association, received a letter from Hon. R. C. Parsons, saying that Senator Palmer would get the Grosse Point amendment cared for in the senate if possible. The bill as it passed the house gave "$50,000, for the St Clair cut with the permission to use any part of same for Grosse Point channel." I am striving to have the senate amend the bill, by striking out $50,000, and insert $100,000. If we succeed it will us the money by June 30th, this year, unless some accident prevents, I am still staving off any action this far if possible on the bridge question and hope to get it out of the way this month.

SIGNOR G. OBARRIO, a Panama merchant, was at the Palmer house. He is on his way to Europe. "I am not a share holder or a contractor," said he," in the Panama canal company, but I am able to say that its success is assured; since the last concession by the French of $120,000,000 of lottery bonds. On the Atlantic side fifteen miles of canal is docked. The digging and dredging are being rapidly advanced from the Pacific side. Nine locks crossing the mountains are being constructed. The first vessel will be sent through before the end of 1891. Fifteen thousand laborers, natives and Jamaican negroes chiefly, are at work The stories of mortality among them are for the most part sheer and unmitigated falsehoods."

THE prospect of the passage of the river and harbor bill at this session of Congress is not altogether encouraging. The committee of the whole has stopped short in its work of consideration midway between Cleveland and Detroit, and the progress so far made is only in consideration of harbors. There is still the entire stretch of upper lakes and the great Pacific slope to be considered in reference to its harbors. And after the harbors are disposed of the rivers of the country must come in for some careful attention. It has become perfectly apparent that Representative Boutell proposes to antagonize every considerable item in the bill. He will make the same fight against the appropriation for the improvement of St. Mary's Falls canal and the Hay Lake channel that he made against the great national work upon the Galveston Harbor. His opposition is of the very narrowest and most selfish sort, but he manages to attract to his support quite a number of men from insular districts, and seaboard districts which have not gotten quite as large appropriations as they hoped for, and he can make a great deal of trouble before he gets through.

THE senate committee on commerce Monday reported back the river and harbor bill to the senate after making a number of amendments. The other day the committee had the bill recommitted, but were sorry afterwards that they did so, for a number of senators whose states had been affected by amendments to the bill were hot about the matter, and were inclined to make a row. The bill as reported the other day had some changes, but none affected Lake Erie harbors. When the bill is taken up, either Senator Sherman or Senator Payne will make an effort to have the proposed reduction on the Ashtabula appropriation taken from the bill, as well as the changes affecting the harbor at Port Clinton.

THE completed river and harbor bill has been reported to the senate. The bill as it came from the house carried an aggregate appropriation of $19,605,783. As reported to the senate it now appropriates $21,388,783, the increase being $1,783,000.

UPON the representations of Mr. Patterson of Essex, the department of marine has decided upon the expenditure of $10,000 in repairing the dummy light at Point Pelee mainland and in placing a steam fog whistle there. This will be a great benefit to all mariners navigating Lake Erie.

MAIDEN TRIP OF THE STEEL STEAMER LACKAWANNA.

The fine steamer Lackawanna, built by the Cleveland Shipbuilding Co. for the Delaware Lackawanna & Western railroad, under the personal supervision of Captain M. M. Drake, the former superintendent of the Union Drydock Co. of this city, left Cleveland at 6 p. m. and arrived at this port at 8:13 making a splendid run down in fourteen hours, 13 minutes machinery working very smoothly, and giving evidence of good average speed, say fourteen miles an hour on 140 pounds of steam, her wheel which is 12 feet diameter, 15 feet pitch, turning up 90 revolutions per minute developing 950 horse power.

The Lackawanna is fine in model and construction and we take this occasion to congratulate the owners and builders. She is 260 feet keel, 280 over all, 38 feet beam and 24 feet depth of hold. The engines are triple expansion the high pressure being 19, intermediate 30 and low pressure 52 inches by 40 inches stroke. This is the first vessel built by the new firm in Cleveland and naturally attracted much attention as she entered port. Many flattering comments were expressed in regard to her model, finish and speed. Several officers of the Delaware, Lackawanna & Western railroad came down on her, those from Buffalo being Captain M. M. Drake and son, F. W. Lobstein, W. C. Colwell, freight agent; S. E. Wells, ticket agent; and J. W. Bessell, paymaster, of Scranton, Pa., Captain O. A. Cheney of Maytham's tug line was also on board. H. D. Coffinberry, president of the Cleveland Shipbuilding Co., F. W. Bristow, superintendent of construction; James C. Wallace, draughtsman; O. H. Steele, superintendent of the machine shop, went along to assist in managing the machinery; A. A. Pomeroy, editor of the MARINE RECORD.

The Lackawanna is officered as follows: James Gibson, who sailed the Fountain City thirteen years, master; William Plietz, last year on the Oscar Townsend, chief engineer; Fred M. Harmon, assistant engineer; Frank Weinheimer, mate.

The Lackawanna cost $200,000 and will have a carrying capacity of 2,400 tons on fifteen feet draft.

Jack Beverly, as usual was at the compass.

LAKE FREIGHTS.

CLEVELAND, May 30.—There was a demand for both Chicago and Milwaukee coal carriers yesterday, but few were offered. Lake Superior coal shippers are badly in need of tonnage. Rates are not changed. Charters are: Schooner Champion, ore, Escanaba to Ohio ports, 90 cents; propeller Chauncey Hurlbut and consort Senator, coal, Cleveland to Chicago, 85 cents; propeller Mark Hopkins, coal, Fairport to Milwaukee, 70 cents; propeller W. H. Wolf, coal, Buffalo to Milwaukee, 85 cents.

The propeller J. H. Prentice and consorts Goshawk and A. A. Carpenter go from Tonawanda to Ashtabula to load coal for Portage at 75 cents.

CHICAGO, Ill., May 30.—There was nothing doing on the board of trade today, but the propeller Wright was chartered for oats and the schooner Mosher for corn to Buffalo.

DULUTH, Minn., May 30.—There is little demand for June tonnage and there will be an early dropping off of shipments from this point the next month. One system of elevators will shut down for thirty days for new machinery, practically taking about 3,000,000 bushels out of the market for that time. The Hiawatha and Minnehaha went to Port Arthur for wheat to Buffalo at 4½ cents on an old charter. Late charters from there are at 3½ cents. The Raleigh and Couch take corn from Washburn to Kingston at 5 cents. A large business is now being done by small craft in bringing cedar ties from Georgian bay to Duluth. Over 100,000 ties have been brought here the last week and charters have been made for 400,000 more. They are for the Manitoba railroad.

BUFFALO, N. Y., May 30.—Coal freights were unchanged. Charters: Propeller W. H. Wolf, F. L. Vance, for Milwaukee, 85 cents; J. C. Gilchrist with Crosthwaite and Foster, for Chicago, 85 cents; Northerner, for Green Bay, 85 cents; schooner C. B. Benson, for Toledo, 40 cents.

The Bulgaria goes to Erie and the Ann Smith with the Red Wing to Toledo to load coal for Duluth.

There is no change in the lumber handlers' strike at Tonawanda. Shippers will not recognize the union and boats are being slowly unloaded.

CELLULOID SHEATHING FOR SHIPS

Among the various uses of celluloid it would appear to be a suitable sheathing for ships in place of copper. A French company now undertake to supply the substance for this at nine francs per surface meter and per millimeter of thickness. In experiments by M. Butaine plates of celluloid applied to various vessels in January last were removed five or six months after, and found quite intact and free from marine vegetation, which was abundant on parts uncovered. The color of the substance is indestructible; the thickness may be reduced to 0.0003 meter; and the qualities of elasticity, solidity, impermeability, resistance to all chemical action, etc., are all in favor of the use of celluloid.—Annals Industrielles.

JOHN.

At the last meeting of the Saturday night club, there were three candidates to be victimized, all named John. The rules of the club are as unalterable as the laws of the Medes and Persians and but one member can be imposed upon in a single night. It seems that there was some surprise contemplated by the committee, for the reason no one knew who the victim was to be, and several songs and essays had been written by different members of the club, among which was one by George Saal's Son, which proved to be abortive because it was addressed to one John who was not a victim. Fred, however bore it well. Other efforts followed, each one of which was a mistakes. Mr. Thomas Quayle, who arrived late, had prepared an elaborate essay on the glory of ship building, but when he came to the name of the builders he was extolling he grew suspicious and cut it in two and finished after he discovered; the victim. Mr. Frank Wright made the presentation remarks, which we have, for want of space curtailed, leaving the following as the narrative—

see by the notices for this meeting, that everyone is expected to take a part in the exercises. I suppose that means, that every one must either make a speech, sing a song, or tell a story. I hope no one will be "backward in coming forward," but "lend a hand," and let us have as enjoyable an occasion as we have ever had.

We are told that some things are "conceived in sin and born in iniquity," it was not so with this club, our great progenitor must have been wise in his day and generation to have formed an organization to be composed of such varied talents and tastes, yet so harmonious in its designs. There are a number of things that we all agree upon. To be sure, we are not all possessed of the same degree of desire for those things, but nevertheless we all agree.

Mr. Wright's presentation was responded to by Mr. Thompson in a few neatly chosen words, notwithstanding he was completely taken by surprise.

The inscription which the cane bore was:

PRESENTED TO
JOHN THOMSON
BY THE
SATURDAY NIGHT CLUB
1888.

YACHTING.

The annual squadron sail of the Cleveland yachting association Wednesday was a success, but a little more wind in connection with the clear weather would have added sport to the pleasure of the occasion. The fleet made up of the yachts Ida, Petrel, Rover, Eole, Unique, Lady Ida, Emma G., Bessie, Marine Record and A. G. Mason, ten in all, did not begin rounding the breakwater until about 10 a. m. The afternoon was spent in base ball and other amusements until it was necessary for the boats and crews to return. The wind died down about 3 o'clock. The Petrel and Ida started home about that time, but the wind was dead ahead. Most of the balance of the fleet were towed down by the tug Maggie Sanburn, excepting the Emma G. and cutter Unique. The Unique remained at the river, but the Emma G. started home towards evening. She had about twenty gentlemen aboard on starting, but ran aground at the river. All parties had to be taken ashore before she floated. The sloop Marine Record, which has been rebuilt, has proved to be a stiff little boat, and with additional canvas will be quite speedy. She was handled by her owner E. J. S. and George Kolbe, a young architect of this city.

NOTICE TO MARINERS.

A twenty-five feet black spar buoy has been placed to mark the shoal three-quarters of a mile south-west by west from Detout light station, Mich. The buoy marks a danger to navigation in the entrance to St. Mary's river, which can be avoided by vessels keeping on the range made by Frying Pan Island and Pipe Island lights. The bearings are as follows, magnetic: Frying Pan Island, N. ½ E. 1⅝ miles. Detour light station, S. W. by W. ¼ W. ¾ miles.

By order of the lighthouse board.

HORACE ELMER,
Com. U. S. N., Inspector 11th district.
DETROIT, May 25th.

OBITUARY.

George H. Notter died at noon Tuesday from the effects of a severe blow on the back of the neck received from a capstanbar, about a month ago. Mr. Notter was born in Cork, Ireland, of English parents, July 1, 1822. The family settled in Brockville, Canada, when he was about eight years old. In 1842 Mr. Notter went to Buffalo and soon after married Miss Harriet Hughes. They had five children.

George H. Notter was one of the widest known tug buildesr along the lakes. His ancestors for generations back were distinguished in that business. He built at Bufialo several vessels of size, but it was chiefly as a builder of tugs that he was celebrated. For over thirty years he had made a speciality of this work. Notter-built tugs may to-day be found at nearly all the lake ports between Ogdensburg and Duluth and Chicago. His tugs always proved satisfactory, and many prominent owners have had one boat after another added to their lines from the Notter yard. He also gave considerable attention to the construction of steam yachts and canal boats.

LAKE CARRIERS' ASSOCIATION,

TO CONSIDER AND TAKE ACTION UPON ALL GENERAL QUESTIONS RELATING TO THE NAVIGATION AND CARRYING BUSINESS OF THE GREAT LAKES AND THE WATERS TRIBUTARY THERETO, WITH THE INTENT TO IMPROVE THE CHARACTER OF THE SERVICE RENDERED TO THE PUBLIC, TO PROTECT THE COMMON INTEREST OF LAKE CARRIERS, AND PROMOTE THEIR GENERAL WELFARE.

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MARINE RECORD—OFFICIAL PAPER.

E. P. WILBUR.

The steel steamship E. P. Wilbur left this port very quietly—so quietly that the manner of her leaving was a matter of comment. But those who had noted the beauty of her lines knew she would be heard from. The following extracts from Buffalo papers give some idea of the noise she has already made among the marine people of the lakes:

The Express says: "The new boats that came into the port of Buffalo Monday set every dockman wild with enthusiasm. Eloquence was plenty all the afternoon. But it appears that the occasion demanded all that was made of it. The new craft in port Monday, not to mention any that came on Sunday, were the propeller P. P. Pratt, from Duluth, owned by James Ash; the Charles S. Parnell, from Detroit, and E. P. Wilbur, of the Lehigh line, fresh from the hands of the builders. Good as the work on the others is, the Wilber appears to have entirely captured everybody by storm. "The handsomest boat out' was the universal verdict. Manager Bullard, of the Union line, said that 'to a nautical eye the Wilbur is the most shipshape and wholesome looking vessel that has come in here She is pronounced more of a sea going craft in appearance than either the Owego or the Hudson, and the modeling of the stern is especially mentioned as the finest on the lakes. She went outside during the afternoon to adjust her compasses and was ready for a load Tuesday, though a number of Lehigh officials are expected here so inspect her and it is not likely that she will be hurried away."

The following is from the Buffalo Courier: "The chief event in marine circles was the arrival of the new steel steamship E. P. Wilbur, of the Lehigh Valley Transportation line. She came light from Cleveland, and this practically was her trial trip. She was built by the Globe Iron Works Co. and undoubtedly is the best boat yet turned out by that enterprising establishment. The trip was made in fourteen hours, an average of 12½ miles per hour, a good showing for new machinery. She had as interested passengers Captain W. P. Henry, general manager of the Lehigh Valley line; J. F. Pankhurst, president; Luther Allen, secretary; John Smith, superintendent; and R. S. Hay, superintendent of machinery, all of the Globe works.

NOTICE.

To the Editor of the Marine Record:

The position where the Lehigh grounded was established, and the vicinity carefully sounded, the bottom is hard and stony, but no evidence of iron ore or other obstructions was found, that nothing of the kind is there, however, cannot be settled without a careful and accurate survey. But even should there be anything of the kind near, when the Lehigh grounded, it does not effect the channel across Grosse Point Flat, as the Lehigh did not ground on the flats, but on the west side of the river bed 1,200 feet below its head, and nearly 1,000 feet to the westward of the course prescribed in the sailing directions issued by the Light House Board. A 25 foot black spar buoy has been placed about 300 feet to the westward of the head of the river in 16 feet of water, to indicate the head of the river, and aid vessels in keeping the range between the light vessel and Belle light house.

HORACE ELMER.
Commander U. S. N. H. L. Inspector.

The latest report of business of the "Soo" canal shows for the first 22 days of May, 1887, 503 vessels passed through the canal, carrying 351,189 tons freight, their registered burthen being 333,632 tons for the 16 days of May, 1888, ending May 22; 175 vessels passed through, carrying 261,344 average per day. In 1887 27 vessels, carrying 15,963 tons of freight, and in 1888 it was 29 11-16 vessels, carrying 21,197 tons freight.

MANISTIQUE.

The City of Milwaukee is an iron steamboat built after one of the best models. She is 250 feet in length by 62 feet beam. The apelation "Greyhound" given to her by passengers is no misnomer, as she makes her 20 knots per hour. She carries a Stevens cut off engine of 1,600 horse power, twelve foot stroke, 62 inch bore. New feathering wheels were put in a year ago A recent inspection of the engine and boilers found everything in first-class order. The main saloon, 215 feet in length, finished in white and gold, is simply beautiful. She is commanded by Captain J. F. Smallman, and W. P. Kenney is chief engineer.

[*Around the Lakes Continued from 1st Page.*]

DETROIT.

Special to the Marine Record.

The damaged corn in the hold of the propeller Lehigh, estimated at 6,000 bushels, was offered for sale at J. T. Whitney's office Saturday. It was knocked down at 40 cents. Besides the corn, about 700 barrels of flour and a few thousand bushels of oats are wet. Captain Smith, of the Lehigh, says she was drawing but fourteen and a half feet of water when she struck, and there was sixteen feet in the channel. The obstruction raised her about six inches, and she grated over it for half a length. The hole is on the bottom, under the forward bulkhead, and the freight in this compartment only was damaged. A steam pump went to work on her, there being still nearly fifteen feet of water in her forward compartment.

At J. Oades' yard the repairs on the yacht Louisa are nearly completed; she will go out of the dock this week. The Lulu B. is having a new topmast and some other minor repairs which will put her in first-class condition for the coming aching season.

The Detroit Boat works have just completed a steam yacht for Mr. H. H. Taylor, superintendent of the Detroit Bolt works. She is 36 feet keel, 40 feet over all, 7 feet 6 inches beam, and has an oscillating engine 6 by 8, Scotch boiler 44 by 52, is very nicely finished and cost about $2,000. The Detroit Boat works have been, and still are doing a very extensive business in their line. They are now working on a yawl and dingy for M. S. Smith's yacht and also supplying the yawl boats for the boats built by Mr. John Oades and the Detroit Dry Dock company. They have just finished a new set of steering wheels for the "F. & P. M. No. 4."

The Detroit Dry Dock company are making the repairs on the steamer Lehigh, damaged by striking a rock at Wind Mill point; she will receive new plates which will cover a hole made in her bow about twenty-five feet from her stern in the second strake from the garboard strake. The expense for repairs will be about $3,000. They have also overhauled the steamer Algomab, giving her a new stern pipe, stern post, and all repairs necessary to put her in first-class shape for the season's work. The steamer Salina is in dock at Springwells for a new wheel, and the Canesteo has also received a new wheel from the same firm.

The new steamer Thomas Davidson stopped at this port on her way down to take on coal, and the engineer expressed himself as being very much pleased with the working of the engines, which were furnished by Samuel F. Hodge.

The Detroit Block works are running full force twelve and one-half hours a day; they keep sixteen men constantly employed and report that they are doing more business this year than ever before. They have made complete outfits of blocks for 22 vessels this season.

Parker & Millen, vessel agents, chartered the Iron King and Iron Queen 2,000 tons of coal each from Cleveland to Lorain.

The following petition to the light house board is being circulated among owners and masters, through the instrumentality of the above named gentlemen at Detroit, Cleveland, Buffalo and Chicago:

To Commander Horace Elmer U. S. Navy inspector 11 light house district, Detroit Mich.

We, the undersigned interested in the navigation of the St. Mary's river, would respectfully call your attention to the need of more prominent marks at Stribling's point, also known as Church's point, and at both entrances to the cut in Lake George. At these points there should be a tripod established, as the present buoys are not of sufficient bulk to attract attention a sufficient distance in slightly thick or hazy weather.

We therefore ask your aid in bringing this important matter to the attention of the lighthouse board.

The great trouble appears to be that large rafts of logs continually tear away the buoys which now mark these points, and by putting up the above mentioned tripods this evil will be remedied. Another matter which should also receive the attention of the government is, while blasting and digging is being done at the canal, the canal authorities should be obliged to furnish men to take vessels lines as they come in, for before a boat can get a man ashore to handle their lines there is danger of a boat taking a sheer off and doing considerable damage to some other boat or her self.

The steamer Wisconsin came down from Milwaukee arriving at this port Tuesday, where she will receive a general overhauling after her winter's work in the ice.

Mr. George Elsey, manager of S. B. Grummond's boats, returned Tuesday from a trip to Toledo.

The steambarge Arctic and consort Ogarita lumber laden from Menominee to Buffalo, went aground on Fighting Island, Sunday night. They were released Tuesday by the tug Carrington and steamer Saginaw sent to their assistance by Captain Ruelle.

Samuel F. Hodge & Co., have furnished a new wheel for the steamer New Orleans, and forwarded it to Chicago where it will be put on. They have also built a new crank shaft for the Belle Wilson, a new wheel for the steam yacht Roberta and one for a new yacht building at Kingston, Ont. They have also put up a triple expansion engine for this boat.

S. A. Murphy tried to pump out the barge Michigan, formerly the Prince Albert, sunk in Detroit river at Windsor, but the Canadian custom officers promptly seized the pumps and stopped business.

BUFFALO.

Manager Bullard of the Union Steamboat line Saturday addressed the following to the masters of the Chemung, Owego, Tioga, and Jewett: "Considerations of safety and economy induce me to instruct you that racing of your steamers will not be permitted. Govern yourselves accordingly." Perhaps there will be no more of those marvelously quick runs down or up the lakes which have caused so much interest among all persons connected with marine matters.

The last fleet from Duluth developed some monstrous grain shortages. At first there was a disposition to keep the fact quiet, tallymen not being anxious to confess their inability to find the grain said to have been loaded for them at the other end of the route, but when it was announced that the propeller Iron Duke was 1,183 bushels short, an amount scarcely ever equaled here, other bad shortages were given away. The propeller M. M. Drake was 53 bushels short, the schooner Nelson 171 bushels, the propeller Ira H. Owen 230 bushels, the P. P. Pratt 81, and the Mecosta 461 bushels. Here is a total of 2,179 bushels discrepancy on six boats and there is probably more unreported. Valued at 90 cents a bushel, for which an overrun was sold this week, it will cost the vessels pretty nearly $2,000 to pay for what somebody else is accountable. But this is business. An effort will be made to recover the Iron Duke's lost grain and it may be found to be a clerical error.

The propeller W. H. Barnum goes into drydock for some repairs and will not be ready to load for three or four days. Her shaft will be taken out and other repairs will be made to her machinery.

The schooner C. G. Benson brings wheat from Toledo.

The propeller Saginaw Valley was hauled out last fall on the bank of the Niagara river at Black Rock and lengthened sixty-five feet amidship. An attempt was made Saturday evening to launch her stern first, she went down thirty feet and then stuck. A powerful tug parted a hawser trying to pull her in and she rests easy on the ways. But it will trouble them to get her afloat. She is owned by Tyler, Galvin & McDougall, and will carry about 1,300 tons. She will be sailed by Captain J. M. McGregor.

The Hudson arrived thirty minutes ahead of Tioga. Tioga was abreast of Hudson soon after coming on Lake Erie, but the latter forged ahead again. Tioga people claim her defeat is due to poor fuel and bad firing.

The steamer Superior was short 371 bushels on 35,000 bushels of wheat from Duluth.

Geo. H. Notter died Tuesday from the effects of a blow on the back of his head from Captain Car. He is well known as a shipbuilder all along the lakes, and tugs of his make can be found from Ogdensburg to Duluth and Chicago. He was sixty-six years old.

Captain McLeod went to Port Colborne to look after wet wheat in the propeller Myles, which was loaded at Port Arthur last fall. The cargo is in bad shape.

On entering Buffalo Captain Gibson of the new steel steamer Lackawanna swung her colors to the breeze and Mr. W. C. Colwell announced that he was going to sing "The Star Spangled Banner," a song that is dear to all Americans, but after the first couplet had been voiced, Mr. F. W. Lobstein went after a gun. After getting fast to the dock the colors were lowered to half mast on account of—Decoration day.

The new steel steamer Lackawanna arrived Wednesday morning from Cleveland on her first trip. She made the run in 14 hours and 13 minutes and logged 14¾ miles the last hour in order to run down her steam. James Gibson, long in the Lackawanna line, is her master and William Plietz, engineer. She loaded owner's coal for Chicago and got away last night.

Captain John Green's steambarge Susan E. Peck is about finished. Captain Green bought the Peck last fall and fitted her with a compound engine and new boilers. She makes a nice looking steamer.

The new tug Woods was launched yesterday from O'Grady & Maher's dock.

Geo. H. Notter, who died, Tuesday, was one of the best known lake tug builders.

Lumber carriers are having a hard time unloading at Tonawanda on account of the strike.

Two tugs failed to pull the Saginaw Valley into the water at Black Rock. The only way to get her off the ways is by dredging away the hill formed by the settling of the ways, caused by the additional weight of timber put into her when lengthened, the cost of which will exceed the value of the enterprise of enlargement. The tugs Wilson and Byers were at work at the stranded propeller Saginaw Valley Tuesday, but at last accounts she was still on the ways.

Hingston & Wood's new tug Arthur Woods, just finished at O'Grady & Maher's came up the creek late Tuesday afternoon where she received a rousing salute from the older tugs.

The Coffinberry tow were crowded ashore on Southeast Bend, St. Clair river, by a raft. There is no redress it is said, for "the rafts own the whole lake."

It is reported from Port Colborne that the propeller Myles, with wheat loaded last fall at Port Arthur, is at Port Colborne with a large amount of it damaged because of a leak. Captain McLeod will go to investigate.

No change in the lumber handlers' strike at Tonawanda. Shippers will not recognize the union and boats are being slowly unloaded under county protection. The new steel steamer Lackawanna, Captain Gibson, arrived Wednesday morning from Cleveland, her first trip. She made the run in fourteen hours and thisteen minutes, and logged fourteen and three fourths miles the last hour. James Gibson, long in the Western line, is her master. She loaded owner's coal for Chicago, and will go away.

The time made by the Lackawanna as compared with the Wilbur is in favor of the former by 2 minutes the last hour's run logging 14¾ miles. The course of the Lackawanna was not changed after she squared away for Buffalo.

The propeller Coffinbury has had trouble with her air-pumps on her way down, which accounts for her losing time. She will probably be here Wednesday.

The new propeller Lackawanna come down from Cleveland Wednesday. She will probably load coal for Chicago.

Several fine tows from Duluth are due, including Morley, Anna Smith, Alcona, and Cumberland. The schooner Oliver Mitchell, reported in Chicago as cleared for Buffalo, is said to be going to Ogdensburg.

The telegraph reports in this department were cut very short last night by the gale that came up during the evening, but no damage was reported in this vicinity.

DULUTH.

The world's record of the rapid loading of wheat was broken Saturday at Duluth. The steamer Monteagle went to the new elevator "H.," made fast to the dock, adjusted six spouts and received a cargo of 50,200 bushels, and left the dock in forty-nine minutes.

The Ossifrage and Record will leave for Port Arthur as soon as the ice is out of Thunder Bay, and will pull Captain Barker's dredging outfit back from there on their return trip.

General manager William P. Henry of the Lehigh line is expected in Duluth in a day or two to make final disposition of the question of moving his business from Chicago to this city.

The ice in the offing offers not the slightest hinderance to navigation, nor has it since the opening of the season two weeks ago, except for a few hours during the part of this week when a strong north east wind piled it up somewhat. Nevertheless enterprising Duluth correspondents of eastern papers at once telegraphed all over the country that a number of vessels were fast in the ice at Duluth. Such newspaper men should be forcibly shown the errors of their ways.

From 10 to 15 ore trains daily are running into Two Harbors from the mines at the range. The extent of the business of the Minnesota Iron Co. can easily be judged. Over 3,400 tons of ore must be handled daily to fill the expected seasons output.

The Emerald, all repairs having been completed, cleared for Ashland Sunday. She will undoubtedly prove a popular boat in that locality and is well fitted up for excursion purposes.

Among the new vessels in port today are the H. J. Johnson, with 2,000 tons of coal for the Ohio Coal company and the M. P. Grover for the Northwestern Fuel company. Both are magnificent specimens of marine architecture.

The mines on the Gogebic have filled orders at the ore docks in Ashland for forty-nine vessels to take ore from that port. The demand for tonnage is growing stronger every day, and the supply is better than it was at this time last year.

A mammoth flouring mill, with a capacity of 6,000 barrels, is to be built on Rice's Point in Duluth at once, the negotiations having been concluded to day. The building will be 100x200 additional when completed. This will be the largest mill in the world. The second in size will be the famous "Pillsbury" mill in Minneapolis with a daily capacity of 5,500 barrels. The stock-holders are wealthy men and no expense will be spared to make the finest milling plant in existence. The plant will be located on what is known as the Peck slip, which has the most admirable dock facilities. The corporation will be known as the Duluth Imperial Mills, and expect to commence grinding May, 1889.

Messrs. Chalk and Monoghan leave tomorrow for Ashland and Washburn to inspect boilers and hulls at those points.

Captain Inman intends to take the Ossifrage down the north shore as soon as it will pay, that is as soon as the ice in Thunder Bay is in shape to permit of navigation without danger or difficulty.

SANDUSKY.

The small steamer J. M. Weston, of Muskegon, purchased by the Sandusky steamboat and fishing company from Captain Waters, of Muskegon, arrived here Tuesday from that port and was transferred to the company. The Weston's dimensions are as follows: length over all 105 feet, beam 18 feet, hold 6 feet 6 inches. She has been in the coasting trade on Lake Michigas, and is practicing new. The company is fitting her up to run between here and its Canadian fisheries and at the close of the fishing season will remove her upper works and place her on another route next season.

The barge Pacific, with a cargo of stone, sprung a leak at the dock here during a squall and sunk.

EAST SAGINAW.

Special to the Marine Record.

The propeller California, which lies in fifty feet of water twelve miles from Mackinaw, on the north shore of lake Michigan, has been purchased by E. Pease, of this city, who will raise and repair her. The California foundered in a gale October 3, 1887, and nine lives were lost by the disaster. Divers report the boat resting on clay bottom but in excellent condition. She was built at Hamilton in 1873 and was one of the staunchest vessels afloat. Her value last year was $35,000 and she was insured for $22,000.

TOLEDO.

Special to the Marine Record.

The cause of the schooner Richard Winslow going aground while coming out of Toledo the 14th. inst., was due to the tug Pathfinder, which was towing her, catching fire while coming through the cut. The Winslow was drawing 14 feet 2 inches aft, and 14 feet forward, the wind was blowing hard, making the water 14 inches below the ordinary stage, she remained until 8 A. M., when a tug pulled her off. There was no damage, and it is only fair to Captain John Connor, to say that the accident was no fault of his, or his men. She had 1,550 tons of coal bound for Duluth.

PORT HURON.

The steambarge Oregon stopped for an engineer, and drifted aground near Fiszgerald's old dry-dock. The ferry Conger is at work at her. Masters should bear in mind that the water is ver shallow at the docks at the upper end at Port Huron.

There were heavy fogs on the river Monday and part of the night. At the flats there was at one time nine steamers and barges aground. The J. P. Clark was high and dry; the Kittie Haight released her. The Coffinberry and tow went aground at the southeast bend; the lighter Saginaw is working to get her off. The Toledo was at the Canadian club house.

WANTED a small passenger steamer, capacity 50 to 75 passengers; also small tug not to draw over 3½ to 4 feet of water. State lowest prices
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East Saginaw, Mich.

MONEY SAVED, MONEY GAINED, MONEY WELL SPENT,
BY BUYING GOODS DIRECT FROM MANUFACTURERS AT JOBBING PRICES.

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MANUFACTURERS AND DEALERS IN FINE CYLINDER, ENGINE, LARD, BLACK OILS, WATER-PROOF GREASE PACKING & WIPES. RAILROAD, STEAMBOAT AND ENGINEERS' SUPPLIES.

WE STAND READY TO HAVE OUR GOODS TESTED AGAINST ALL OTHERS, AND WILL CHEERFULLY SUPPLY SAMPLE CAN OR BARREL, NOT TO BE PAID FOR UNLESS SATISFACTORY AT THE END OF THE TRIAL; TO BE PAID FOR AT REGULAR RATES WHEN THE GOODS ARE PRONOUNCED SATISFACTORY.

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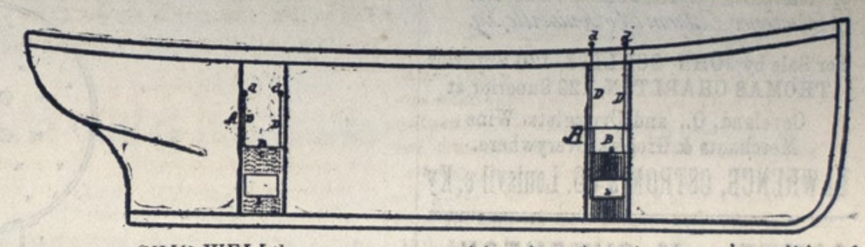

SHIP WELLS.

Joseph Moffett, of Cleveland, Ohio, has received patent for ship wells, which will prove of great utility on all vessels. The specification form part of letters patent No. 381,943, dated May 1, 1888. The application filed February 20, 1888. Serial No. 264,595. (No model.)

To all whom it may concern:

Be it known that I, Joseph Moffett, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and state of Ohio, have invented certain new and useful improvements in ships, of which the following is a specification.

This invention relates to ships, and has for its object to provide a quick and ready means of getting down into the hold of loaded ships with a suction hose of a pump for pumping out the water which may, by reason of accident, as collisions, spring aleak, or otherwise, get into the hold.

It consists in providing reserve wells in the ship, reaching from the deck down into the bottom of the hull, into which the suction hose of a pump may be inserted and draw the water from the bottom, the water in the hold having access to the wells, thereby greatly facilitating the labor and reducing the expense of removing water from loaded ships without removing or disturbing the cargo. To accomplish such results I construct and attach to ships wells or communicating tubes from the deck down into the hold, substantially as shown in the accompanying drawings, in which—

The figure is a longitudinal section of the hull of a ship, showing the location and arrangement of the said wells therewith.

A in the several figures represents a casing or tubing reaching from the deck *a* to the bottom of the hold of a ship, forming a well or vertical chamber. In the lower part of said casings are made vertical slots *b*, extending from the bottom upward about two feet above the said slots. A second row of similar slots *c* are also made about two feet above the said slots *b* These slots are two inches wide and one inch apart, the bars forming a grating through which water may pass into the well. Within the casing is provided a valve, B, consisting of a box open at each end and fitted to slide snugly in the lower end of the casing It is designed to close the slots on the inside of the casing A, and is made long enough to cover both rows of slots *b* and *c*. At the middle part of said valve are made openings in the sides, the purpose of which will hereinafter appear. To the top of said box B are attached rods D D, having eyes or loops *d* on their upper ends. The rods are designed to be used for raising the valve whenever the well is to be used, and hold it up for uncovering the slots, 8, to freely admit water into the well. The lower ends of the slots are beveled downward to prevent the lodgment of grain or other matter which comprises the cargo of the ship.

There may be made a hole in the deck over the well, which may be closed with a suitable cover, or there may be scribed a ring in the top surface of the deck to indicate the location of the well underneath. Then, when necessary for use, a hole may be cut through the deck for the insertion of the pump suction hose.

From the foregoing it will be seen that the ship having these wells may be loaded with the cargo completely surrounding the well, and then in case of emergency will be provided with a ready means of withdrawing the water from the midst of the cargo without having to remove or disturb it, the operation of which is as follows:

When required to withdraw the water from the hold, an entrance through the deck is made by cutting a hole or removal of a cover, as before stated. Then the valve is raised by the rods and secured in that position by running a rod or bar through the loops or eyes above the deck. This opens all the slots and gives ready ingress of water to the well. Now the suction hose of a pump may be inserted through the deck and passed down to the very bottom of the hull and the water pumped out.

The casing and valve shown in the drawings are designed to be made of heavy wood plank, in which case the well is made with square sides. By making them of metal they may be made cylindrical; but they should be strong enough to withstand hard blows or usage without injury.

Having described my invention, what claim is—

The improvement in ships, consisting in the combination of the casing A, secured between the deck and the bottom of the hold, said casing having the slotted or grated opening *b c* in its sides at and near the bottom, and provided with the valve B, playing inside of the casing, for closing the said slots when down, and having the middle openings, whereby when raised by the rods D free openings are made through the slots or gratings, communicating with the interior of the wells, substantially as described, and for the purpose specified. JOSEPH MOFFETT.

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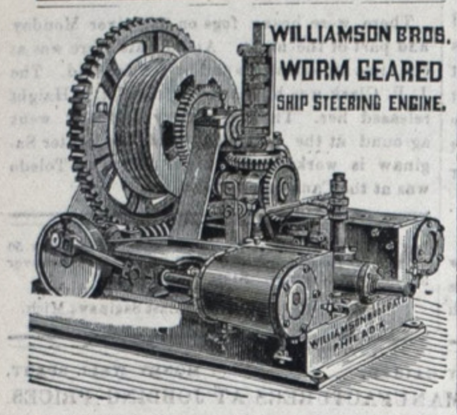

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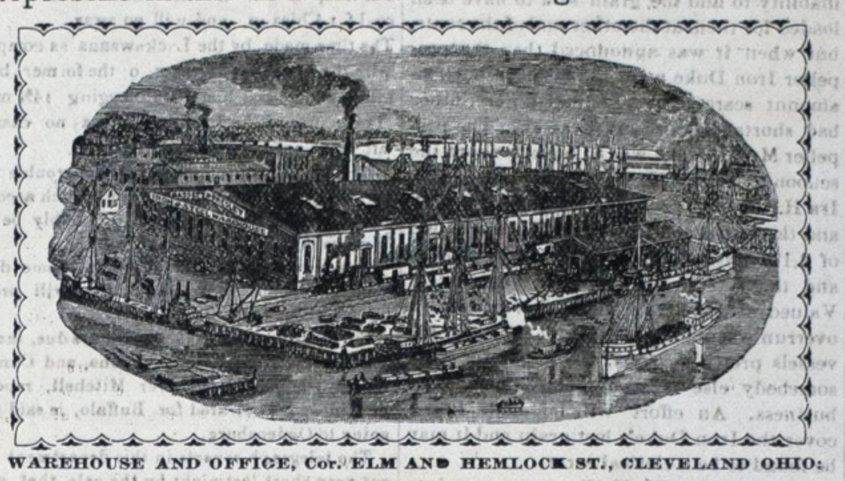

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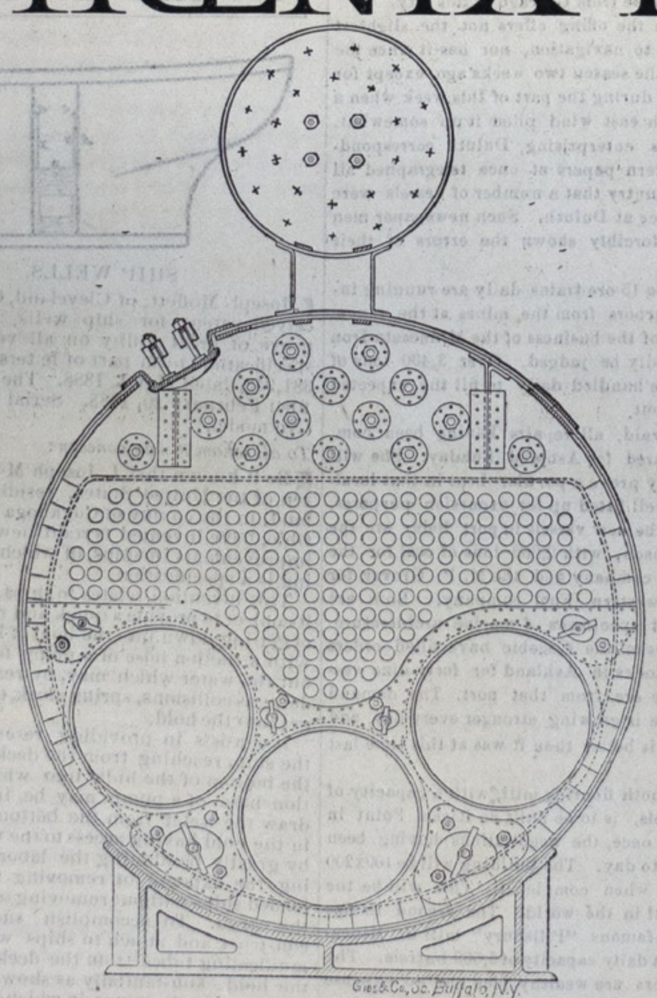

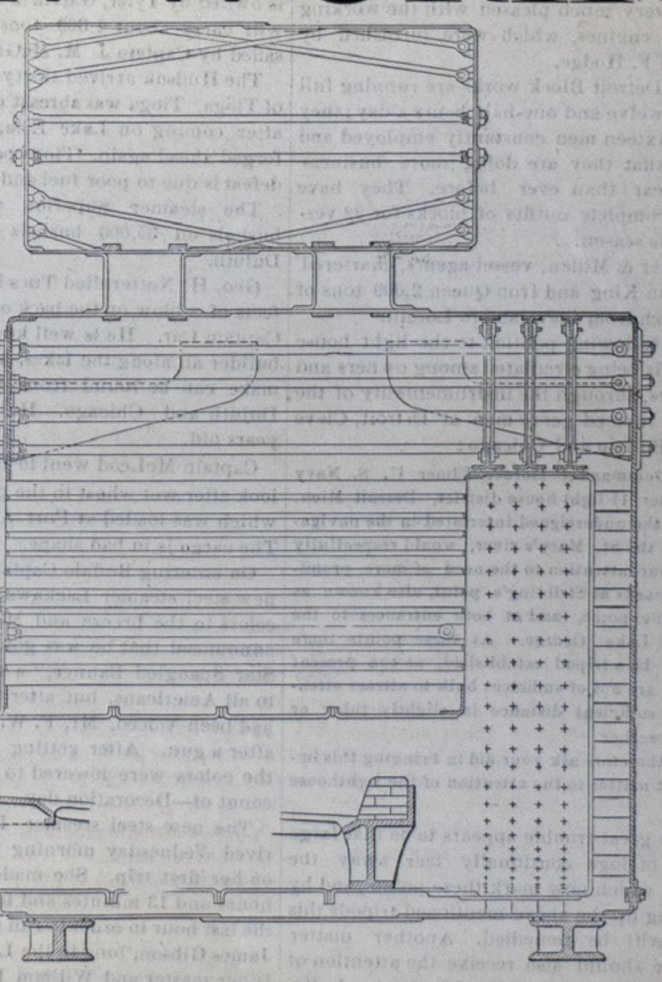

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Eastward.	Arrive	Depart.
No 4, Fast Limited Express	⁰2 55 A M	⁰2 55 A M
No. 6 N. Y. & Boston Ex	*1 35 A M	*1 40 A M
No 8, N. Y. B & A Express	⁰8 25 A M	⁰8 50 A M
No 26, Elyria Accommodation	†7 45 A M	.....
No 24, Buffalo Ac'm via Sandusky	†10 05 A M	†10 15 A M
No 24, Toledo Accom via Norwark	†10 05 A M	†10 15 A M
No. 10, New York & Boston, "Flyer"	.....	*11 30 A M
No 12, N Y & B Fast Express	⁰2 35 P M	3⁰ 45 P M
No 2, Night Ex via Norwalk	9 40 P M	†10 00 P M
No 22, Night Ex via Sandusky	†9 40 P M	.....
No 26, Conneaut Accommodation	†4 25 P M	.....

Westward.	Arrive.	Depart.
No 1, Fast Limited Express	⁰12 15 A M	⁰12 15 A M
No. 23, Cleveland Express	⁰2 15 A M	
No 3, Chicago Express via " "	§5 30 A M	5 45 A M
No 25, Mich Accom Norwalk	.....	†5 45 A M
No 21, Toledo Ex via Norwalk	†12 50 P M	†3 20 P M
No 5, St Louis Ex via Sandusky	*10 50 A M	*10 55 A M
No 9, Chi Pac Ex via Norwalk	*6 55 P M	*7 15 P M
No 31, Elyria ac to Elyria only	.....	†4 30 P M
No 27, Conneaut Accommodation	†8 10 A M	.....

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Reference marks—⁰ Daily, † daily, except Sunday, § daily, except Monday.

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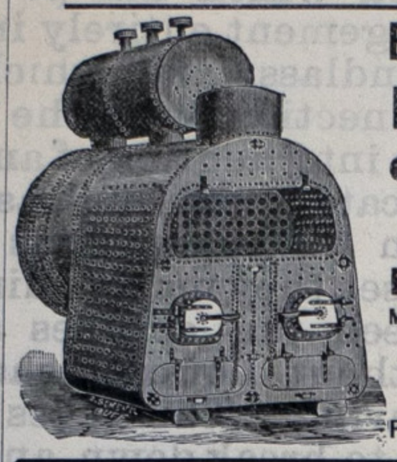

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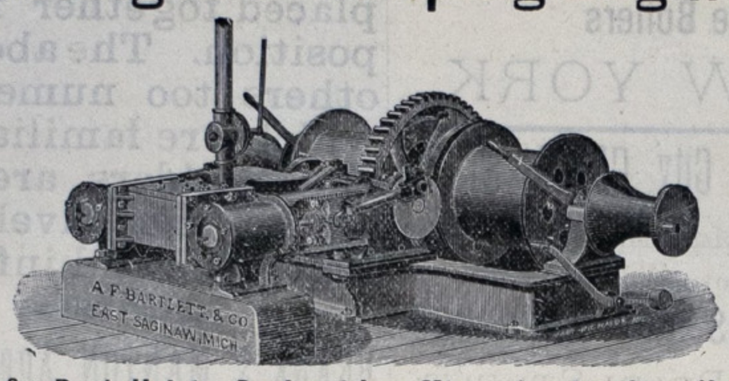

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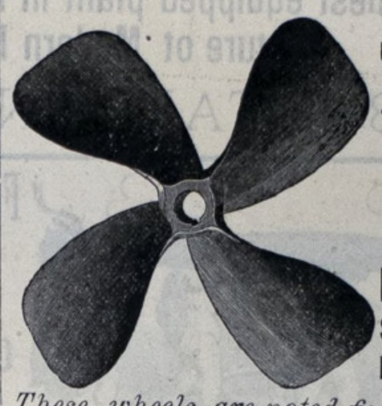

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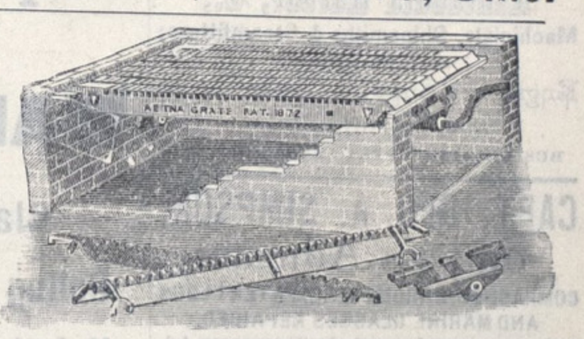

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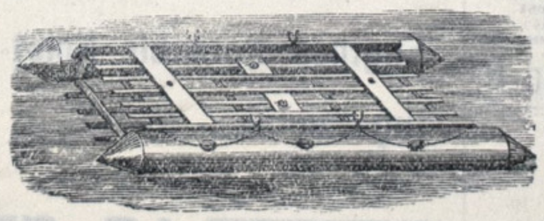

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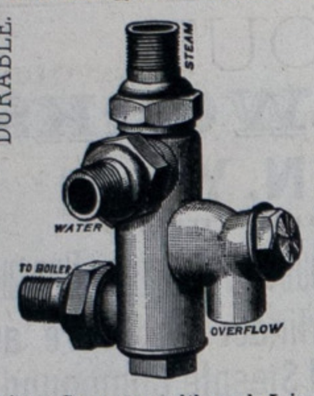

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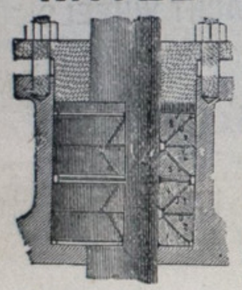

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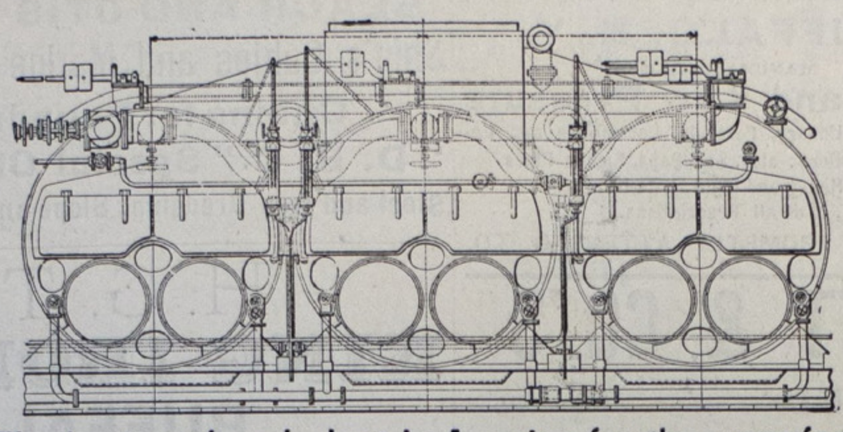

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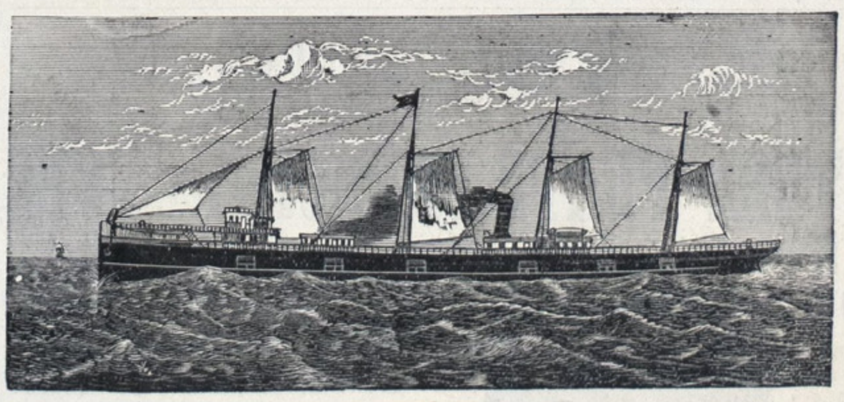

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